

Attorney Docket No. 5051.338CTDV.
Serial No.: 10/748,789
Filed: December 30, 2003
Page 3 of 11

RECEIVED
CENTRAL FAX CENTER

APR 04 2007

IN THE CLAIMS

Please amend the claims as follows. This listing of claims replaces all prior versions.

1-62. (Canceled).

63. (Currently amended) A method of making a transgenic tobacco plant cell having increased quinolate phosphoribosyl transferase (QPRTase) expression, said method comprising: ~~providing~~transforming a tobacco plant cell ~~of a type known to express quinolate phosphoribosyl transferase;~~

~~providing~~with an exogenous DNAnucleic acid construct, which construct comprises, in the 5' to 3' direction, a promoter operable in a tobacco plant cell and a DNAnucleotide sequence encoding a quinolate phosphoribosyl transferase comprising the amino acid sequence of SEQ ID NO:2, wherein said DNAnucleotide sequence is operably associated with said promoter; and ~~transforming said plant cell with said DNA construct,~~ to produce transformed tobacco plant cells, said tobacco plant cells having increased expression of QPRTase compared to an untransformed tobacco plant cell.

64. (Currently amended) The method of claim 63, wherein said tobacco plant cell is *Nicotiana tabacum*.

65. (Currently amended) The method of claim 63, further comprising regenerating a tobacco plant from said transformed tobacco plant cell.

66. (Original) A method according to claim 63, wherein said promoter is constitutively active.

67. (Original) A method according to claim 63, wherein said promoter is selectively active in plant root tissue cells.

Attorney Docket No. 5051.338CTDV.
Serial No.: 10/748,789
Filed: December 30, 2003
Page 4 of 11

68. (Original) A method according to claim 63, wherein said promoter is selectively active in plant root cortex tissue cells.

69. (Currently amended) A method according to claim 63, wherein said transforming step is carried out by bombarding said tobacco plant cell with microparticles carrying said DNAnucleic acid construct.

70. (Currently amended) A method according to ~~claims~~claim 63 wherein said transforming step is carried out by infecting said tobacco plant cell with an *Agrobacterium tumefaciens* containing a Ti plasmid carrying said DNAnucleic acid construct.

71. (Currently amended) A method of producing transgenic tobacco seeds, comprising collecting transgenic seeds from a transgenic tobacco plant produced by the method of claim 63.

72. (Currently amended) The method according to claim 63, wherein said DNAnucleotide sequence comprises the ~~quinolate phosphoribosyl transferase encoding~~nucleotide sequence of SEQ ID NO:1.

73. (Canceled)

74. (Currently amended) A transgenic plant of the ~~species~~genus *Nicotiana* having increased quinolate phosphoribosyl transferase (QPRTase) expression relative to a non-transformed control plant, said transgenic plant comprising transgenic plant cells containing:
an exogenous DNAnucleic acid construct comprising, in the 5' to 3' direction, a promoter operable in said plant cell and a DNAnucleotide sequence encoding a plant quinolate

Attorney Docket No. 5051.338CTDV.
Serial No.: 10/748,789
Filed: December 30, 2003
Page 5 of 11

phosphoribosyl transferase comprising the amino acid sequence of SEQ ID NO:2, said ~~DNA~~nucleotide sequence operably associated with said promoter;
said plant exhibiting increased QPRTase expression compared to a non-transformed control plant.

75. (Currently amended) The ~~method~~transgenic plant according to claim 74, wherein said ~~DNA~~nucleotide sequence comprises the ~~quinolate phosphoribosyl transferase encoding~~nucleotide sequence of SEQ ID NO:1.

76. (Currently amended) ~~A~~The transgenic plant according to claim 74, wherein said promoter is a constitutively active promoter.

77. (Currently amended) ~~A method~~The transgenic plant according to claim 74, wherein said promoter is selectively active in plant root tissue cells.

78. (Currently amended) ~~A method~~The transgenic plant according to claim 74 wherein said promoter is selectively active in plant root cortex tissue cells.

79. (Currently amended) ~~A~~The transgenic plant according to claim 74, which plant is *Nicotiana tabacum*.

80. (Currently amended) A transgenic plant of the ~~species~~genus *Nicotiana* having increased quinolate phosphoribosyl transferase (QPRTase) expression relative to a non-transformed control plant, wherein said transgenic plant is a progeny of a plant according to claim 74.

81. (Currently amended) Seeds of a transgenic plant of the ~~species~~genus *Nicotiana* having increased quinolate phosphoribosyl transferase (QPRTase) expression relative to a non-

Attorney Docket No. 5051.338CTDV.
Serial No.: 10/748,789
Filed: December 30, 2003
Page 6 of 11

transformed control plant, wherein said transgenic plant is a plant according to claim 74 or a progeny thereof.

82. (Original) A crop comprising a plurality of plants according to claim 74 planted together in an agricultural field.

83. (Currently amended) A method for increasing expression of a quinolate phosphoribosyl transferase gene in a tobacco plant cell, said method comprising:
growing a tobacco plant cell transformed to contain exogenous DNA nucleic acid, wherein said exogenous DNA nucleic acid encodes a quinolate phosphoribosyl transferase comprising the amino acid sequence of SEQ ID NO:2.

84. (Currently amended) The method of claim 83, wherein said tobacco plant cell is a Nicotiana tabacum plant cell.

85. (Currently amended) The method according to claim 83, wherein said transformed tobacco plant cell is obtained by a method comprising:
integrating into the genome of a host tobacco plant cell a construct comprising, in the direction of transcription, a promoter functional in said plant cell, a DNA nucleotide sequence encoding quinolate phosphoribosyl transferase functional in said cell comprising the amino acid sequence of SEQ ID NO:2, said DNA nucleotide sequence operably associated with said promoter, and a transcriptional termination region functional in said tobacco plant cell, whereby a transformed tobacco plant cell is obtained.

86. (Original) A method according to claim 85, wherein said promoter is constitutively active.

Attorney Docket No. 5051.338CTDV.
Serial No.: 10/748,789
Filed: December 30, 2003
Page 7 of 11

87. (Original) A method according to claim 85 wherein said promoter is selectively active in plant root tissue cells.

88. (Original) A method according to claim 85, wherein said promoter is selectively active in plant root cortex tissue cells.

89. (Currently amended) The method according to claim 83, wherein said DNA nucleotide sequence comprises the quinolate phosphoribosyl transferase encoding nucleotide sequence of SEQ ID NO:1.

90. (Canceled).

91. (Currently amended) A method of producing a tobacco plant having an increased levels amount of nicotine in leaves of said tobacco plant, said method comprising:

growing a tobacco plant, or progeny plants thereof, wherein said plant comprises cells containing a DNA nucleic acid construct comprising a transcriptional initiation region functional in said plant and an exogenous DNA nucleotide sequence operably joined to said transcriptional initiation region, wherein said DNA nucleotide sequence encodes quinolate phosphoribosyl transferase functional in said cells comprising the amino acid sequence of SEQ ID NO:2.

92. (Currently amended) The method according to claim 91, wherein said DNA nucleotide sequence comprises the quinolate phosphoribosyl transferase encoding nucleotide sequence of SEQ ID NO:1.

93. (Canceled).